

**Operation & Maintenance Manual** 



# **Flowmeters GR and GRV**

Platon GR/GRV Flowmeters are available calibrated for a wide range of flow ranges of air or water. Check the flow range supplied from the scale labels on the flowmeter. Installation, operation and maintenance are very simple, and with a few common sense precautions these units will give long trouble free service.

## **Caution - Fluid Resistance**

Do not use on questionable gases or liquids without reference to the factory. The flowtube is polycarbonate and the connections stainless steel. Avoid solutions of acids, bases etc having a pH below 5 or above 8.5. Caustic solutions, antifreeze and aromatic solvents should not be measured.

# Application

Check that the model and flow range are correct before installation. Pressure limit is 100psi/7bar. Temperature limit is 55°C. Do not exceed these limits.

Do not use in atmospheres contaminated with chlorine, or solvents. Do not install on panels or pipework subject to excessive vibration.

# Piping

Wherever possible use as few elbows and restrictions as possible. The connections are 1/8" NPT - pipework should be as large as possible to reduce pressure drops. Accuracy of air flowmeters relies on the discharge pressure being at or near atmospheric, so this pipework should be as short as possible.

# Mounting

All GR/GRV Flowmeters must be mounted in a vertical position with the inlet connection at the bottom rear, and the outlet at top rear.

Make pipework connections with 1/8'' NPT male connectors sealed with RTV sealant or ptfe tape.





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#### **Bezel or Panel Mount**

Make the panel cutout using appropriate dimensions. (Eq. 118 x 22). The Flowmeter must fit into the cutout freely without force. install the 2 mounting clamps from the rear, tighten against the back of the panel.

#### Surface Mount

Drill two holes 12mm diameter vertically above one another, spaced 76mm for the pipe connections. Between these two, drill two holes 8mm diameter, spaced 41mm, about the mid point between the pipe connections, for the mounting screws.

#### **Pipe Mount**

The meter can be installed on rigid pipework, or alternatively additional nuts can be used on long pipe connections. Nuts to be tightened up against the rear face of the panel.

#### Operation

On start up, open the flow valve slowly to avoid possible damage. Flow rate is read from the float at the point of maximum horizontal width, for spherical floats.

On GRV models, the valve is turned anti clockwise to increase the flow.

### **Caution - Valved GRV**

Do not unscrew the valve completely, unless the flowmeter is unpressurised and drained of any process fluid. After approximately 8 turns the valve will be released completely: removal will allow gas or liquid to flow out of the front of the flowmeter, which could result in serious personal injury.

#### Cleaning

The flow tube and flowmeter body can best be cleaned in normal soap and water. Use of a soft bottle brush can assist.

#### Maintenance

The only maintenance normally required is occasional cleaning to remove any deposits and ensure float visibility

#### **Dis-assembly**

- 1. On GRV models, unscrew the valve knob totally and withdraw the valve stem.
- 2. Remove the four mounting plate screws located on the sides of the flowmeter.
- 3. Pull the flowmeter body forwards away from the back plate and pipe connections. Keep the body parallel to the back plate to avoid undue strain on the polycarbonate body.
- 4. Remove the top cap of the flowmeter by pushing backwards with a standard screwdriver.
- 5. Remove the screwed end using a 1/4'' allen key.
- 6. Remove the float ball by inverting the flowmeter and allowing the float to fall out into your hand.

#### **Re-assembly**

Simply reverse the dis-assembly procedure. A little silicone grease or petroleum jelly on the O ring seals will aid assembly and give a good seal.

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Page 2 of 2